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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,765	01/10/2001	Joseph W. Hundley JR.	8420	
75	90 04/22/2003			
James W. Hiney, Esq. Suite 1100 1872 Pratt Drive			EXAMINER	
			TOOMER, CEPHIA D	
Blacksburg, VA 24060			ART UNIT	PAPER NUMBER
			1714	
			DATE MAILED: 04/22/2003	1

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
Office Action Comment	09/757,765	HUNDLEY, JOSEPH W.				
Office Action Summary	Examin r	Art Unit				
	Cephia D. Toomer	1714				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status						
1) Responsive to communication(s) filed on 17 J	Responsive to communication(s) filed on <u>17 January 2003</u>					
2a)⊠ This action is <b>FINAL</b> . 2b)☐ Th	is action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims						
4) Claim(s) 1 and 3-23 is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6) Claim(s) <u>1,3-15 and 17-19,21-23</u> is/are rejected.						
7) Claim(s) 12 and 16 is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.  Application Papers						
9) The specification is objected to by the Examiner.						
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.						
If approved, corrected drawings are required in reply to this Office action.						
12)☐ The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) ☐ All b) ☐ Some * c) ☐ None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
<ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.						
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informal P	(PTO-413) Paper No(s) atent Application (PTO-152)				

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#### **DETAILED ACTION**

This Office action is in response to the amendment filed January 17, 2003 in which claims 1 and 3-19 were amended, claims 2 and 20 were canceled and claims 21-23 were added.

It should be noted that the examiner did not phone applicant before sending out the letter to the non-responsive amendment because, as seen in the amendment of January 17, 2003, extensive changes were required. The examiner wanted to make sure that applicant understood what changes were required.

It should be noted that the clean copy of claims 15 and 17-19 does not agree with the marked-up copy of these claims. The claims on the clean copy are the claims that are examined.

## Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21-23 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no support in the original filed specification for the limitations 0 to 70% wax hydrocarbon, 0 to 40% neutralized fatty acid and 0 to 99% water (claim 21)

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and the limitation of claim 23. Also in claim 21, there is no support for the language "chemically change the functional Group bonding found in coal".

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15 and 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 is rejected because claim 13 is directed to a method and not an emulsion and also because there is no antecedent support in claim 13 for "polyvinyl acetate".

Claim 17 is rejected because claim 15 is directed to an emulsion and not a "composition" and also because claim 15 already recites the limitation regarding polyvinyl acetate.

Claim 18 is rejected because claim 16 is directed to an emulsion and not a "composition" and also because there is no antecedent support in claim 16 for the presence of polyvinyl acetate.

Claim 19 is rejected because claim 15 is directed to an emulsion and not a "composition". Claim 15 sets forth the presence of 10% polyvinyl acetate; therefore, it is not clear how the polyvinyl acetate can be present in the emulsion in an amount less than 10%.

The rejection of claim 4 under 35 USC 112, second paragraph is maintained for the reasons of record. Claim 1 does not teach a range for the polyvinyl alcohol.

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The rejection of the claims under 35 U.S.C. 103(a) as being unpatentable over JP 2000080356 is withdrawn in view of Applicant's arguments.

## Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1, 3-11, 13-15, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borenstein (US 5,437,722).

Borenstein teaches an aqueous emulsion comprising paraffinic wax, montan wax and polyvinyl alcohol (see abstract). The montan wax is present in the composition in amount of about 1 to 200 parts, by weight, per 100 parts of paraffin (see col. 2, lines 12-19). The water makes up from 35 to 80% of the composition. The composition also contains alkali metal or ammonium hydroxides stabilizers (see col. 3, lines 18-20). The polyvinyl alcohol is at least 90% hydrolyzed polyvinyl acetate (see col. 3, lines 4-9). Borenstein teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, Borenstein differs from the claims in that he does not specifically teach applicants intended use (claims 1 and 21). However, intended use is given no patentable weight in claims that are directed to the composition per se.

In the second aspect, Borenstein differs from the claims in that he does not specifically teach the claimed method. However, it would be reasonable to expect that the composition of Borenstein would assist complete combustion of the material since Borenstein's method steps and Applicant's method steps are the same, i.e., the composition is applied to the material. Also, no unobviousness is seen in Applicant's mode of applying the composition because it is one of the logical ways of applying the composition and the skilled artisan would have recognized that spraying the composition would be an option.

In the third aspect, Borenstein differs from the claims in that he does not specifically teach that the composition of his invention would change the composition of coal to qualify for tax credits. However, since Borenstein teaches a similar composition it would be reasonable to expect that were the composition to be added to coal that the composition would change the composition of coal.

Applicant argues that Borenstein does not discuss chemical change in the bonds of the coal or the changes in the FTIR reading.

Applicant's claims do not contain coal as one of the recited components. The only mention of coal is in the preamble (claim 21), claim 12 (not rejected over the prior art) and intended purpose of composition (claim 23). As stated above, the preamble and intended use are given no patentable weight in claims that are directed to the composition per se.

Applicant argues that Borenstein does not contain polyvinyl acetate.

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The examiner respectfully disagrees. Borenstein teaches that the polyvinyl alcohol is prepared by hydrolysis of polyvinyl acetate and that the polyvinyl acetate is at least 90% hydrolyzed. Therefore, there is at least 10% of unhydrolyzed polyvinyl acetate in the polyvinyl alcohol composition.

#### Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35
U.S.C. 102 that form the basis for the rejections under this section made in this
Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Greve (US 3,935,021).

Greve teaches a composition comprising 0.15 wt % polyvinyl alcohol and at least about 3 wt % wax-asphalt emulsion (paraffin or microcrystalline wax) (see col. 4, lines 59-66; claim 1).

Accordingly, Greve teaching all the material limitations of the claims, anticipates the claims.

7. Claims 12 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art fails to teach the addition of coal to the composition.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 703-308-2509. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Cephia D. Toomer Primary Examiner Art Unit 1714

09757765\10 April 21, 2003